

What is claimed is:

1. A photoelectric sensor comprising:

a sensor unit having a casing, said casing including a first
5 surface extending in a longitudinal direction and a transverse
direction, said first surface having a first display and a second
display each being disposed substantially adjacent to each other
along the transverse direction and extending along substantially
equal positions in the longitudinal direction of said first
10 surface, said first display being a numerical display capable of
displaying a plurality of numerical digits and being capable of
displaying a threshold value that may be set by an operator of
said photoelectric sensor, said second display being a numerical
display capable of displaying a plurality of numerical digits and
15 being capable of displaying actual conditions sensed by said
photoelectric sensor, the actual conditions sensed by said
photoelectric sensor and displayed on said second display include
an amount of light received by said photoelectric sensor,

an adjustment means for adjusting the threshold value
20 displayed on said first display while displaying at least one
actual condition on said second display, and wherein said
adjustment means is disposed on said first surface at a different
longitudinal position than said first display and said second
display.

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2. A photoelectric sensor as defined in claim 1, wherein said first and said second displays have substantially equal shapes and sizes.

5 3. A photoelectric sensor as defined in claim 1, further comprising a selection device for selecting different operational values to display on said second display including selecting to display the amount of light received by said photoelectric sensor and a detection ratio, wherein said selection device includes a
10 mechanism disposed on said casing for changing the different operational values on said second display.

 4. A photoelectric sensor as defined in claim 3, further comprising a CPU for processing information and determining the
15 actual conditions sensed by said photoelectric sensor, said CPU being capable of determining a value indicative of an actual amount of light received by said photoelectric sensor and a detection ratio, the detection ratio being a ratio of the threshold value and the actual amount of light received by said
20 photoelectric sensor, said CPU being operatively connected to said second display to cyclically display the value indicative of the actual amount of light received by said photoelectric sensor and the detection ratio on said second display.

25 5. A photoelectric sensor as defined in claim 1, further

comprising:

a first mode for displaying the threshold value that may be set by the operator of said photoelectric sensor on said first display and the actual conditions sensed by said photoelectric sensor on said second display, and

a second mode for setting conditions corresponding to a plurality of functions provided in said photoelectric sensor and displaying one function selected from a plurality of functions on one of said first and said second displays and one condition selected from a plurality of conditions corresponding to said function displayed on said one of said first and said second displays, on the other of said first and said second displays.

6. A photoelectric sensor as defined in claim 5, further comprising a mode selection switch for changing between the first mode and the second mode.

7. A photoelectric sensor as defined in claim 6, wherein said mode selection switch is disposed on said first surface at a longitudinal position different than said first display and said second display.

8. A photoelectric sensor as defined in claim 1, wherein said sensor unit is a main body unit and said photoelectric sensor further comprises a sensor head unit disposed apart from

and operatively connected to said main body unit.

9. A photoelectric sensor as defined in claim 8, wherein
said sensor head unit includes an outer casing, said outer casing
5 including one surface having a first head unit display and a
second head unit display, said first head unit display being
structured and arranged to display a property set by an operator
of said photoelectric sensor and said second head unit display
being structured and arranged to display actual conditions sensed
10 by said photoelectric sensor.

10. A photoelectric sensor as defined in claim 1, wherein
said sensor unit includes an emitting portion and a receiving
portion disposed in said casing.

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11. A photoelectric sensor as defined in claim 10, wherein
said emitting portion is separate from said receiving portion.

12. A photoelectric sensor as defined in claim 1, wherein
20 said second display further includes an indicator light
corresponding to the actual condition displayed on a portion of
said second display.

13. A photoelectric sensor comprising:
25 a sensor unit having a casing, said casing including a

surface extending in a longitudinal direction and a transverse direction, said surface having a first display and a second display each being disposed substantially adjacent to each other along the transverse direction and extending along substantially equal positions in the longitudinal direction of said surface, said first and said second displays being a numerical displays capable of displaying a plurality of numerical digits, said photoelectric sensor including:

a first mode for displaying a threshold value that may be set by an operator of said photoelectric sensor on one of said first and said second displays and an amount of light received by said photoelectric sensor on the other of said first and said second displays,

a second mode for setting conditions corresponding to a plurality of functions provided in said photoelectric sensor and displaying one function selected from a plurality of functions on said first display and one condition selected from a plurality of conditions corresponding to said function displayed on said first display, on said second display, and

a mode selection switch for changing between the first mode and the second mode.

14. A photoelectric sensor as defined in claim 13, wherein said mode selection switch is disposed on said first surface at a longitudinal position different than said first display and said

second display.

15. A photoelectric sensor as defined in claim 13, wherein
said sensor unit is a main body unit and said photoelectric
5 sensor further comprises a sensor head unit disposed apart from
and operatively connected to said main body unit.

16. A photoelectric sensor as defined in claim 13, wherein
said sensor unit includes an emitting portion and a receiving
10 portion disposed in said casing.

17. A photoelectric sensor comprising:
a sensor unit having a casing, said casing including one
surface extending in a longitudinal direction and a transverse
15 direction, said one surface having a first display and a second
display each being disposed substantially adjacent to each other
along the transverse direction and extending along substantially
equal positions in the longitudinal direction of said one
surface, said first display being a numerical display capable of
20 displaying a plurality of numerical digits and being capable of
displaying a threshold value that may be set by an operator of
said photoelectric sensor, said second display being a numerical
display capable of displaying a plurality of numerical digits and
being capable of displaying actual conditions sensed by said
25 photoelectric sensor, the actual conditions sensed by said

photoelectric sensor and displayed on said second display include an amount of light received by said photoelectric sensor;

5 a selection device for selecting different operational values to display on said second display including selecting to display the amount of light received by said photoelectric sensor and another operational value, wherein said selection device includes a mechanism disposed on said casing for changing the different operational values on said second display.

10 18. A photoelectric sensor as defined in claim 17, wherein said selection switch is disposed on said one surface at a longitudinal position different than said first display and said second display.

15 19. A photoelectric sensor as defined in claim 17, wherein said sensor unit is a main body unit and said photoelectric sensor further comprises a sensor head unit disposed apart from and operatively connected to said main body unit.

20 20. A photoelectric sensor as defined in claim 17, wherein said sensor unit includes an emitting portion and a receiving portion disposed in said casing.